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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In re the Matter of	)	
	)	
PETITION FOR RULEMAKING	)	RM-7806
BY AMERICAN MOBILE	)	
SATELLITE CORPORATION	)	
	)	

To: The Commission

RESPONSE TO REPLY COMMENTS
OF AMERICAN MOBILE SATELLITE CORPORATION

Aerospace and Flight Test Radio Coordinating Council ("AFTRCC"), by its counsel, hereby responds to certain new matter raised by American Mobile Satellite Corporation ("AMSC") in its Reply Comments filed November 14, 1991 in the above-captioned proceeding. AMSC argues that it can share the band 1515-1525 MHz with aircraft and missile flight testing, and even goes so far as to assert that sharing would "not require any frequency accommodation of existing and planned aeronautical telemetry facilities." Id. at 11.[1/]

As AFTRCC has discussed previously, there is absolutely no basis for re-allocation of the 1515-1525 MHz band for Mobile Satellite Service ("MSS") use. On the contrary the Commission

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1/ A Motion for Leave to Accept is being filed concurrently herewith.

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recently agreed with the Executive Branch that the band 1435-1525 MHz is not on the table insofar as the U.S. negotiating position at the WARC is concerned. See News Release dated October 31, 1991. This determination applies in spades to AMSC which is already the projected beneficiary of 5 MHz from the aerospace allocation (1525-1530 MHz) -- a band it supposedly wanted "merely" to fill in a 5 MHz mismatch in its uplink and downlink allocations. For AMSC to now turn around and ask for yet more flight test spectrum on the grounds that it would be adjacent to 1525-1530 MHz represents the very worst sort of bootstrapping.

Moreover, the aerospace community may suffer re-allocation of no less than 50 MHz of spectrum from the S-band if the U.S. position should prevail at the WARC. While AFTRCC is not happy about this, it is not too high a price to preserve the remainder of the L-band. For present purposes, however, it underscores the absence of any reasonableness to AMSC's request for yet more L-band spectrum.[2/]

[2/] In its footnote 8 AMSC attempts to downgrade the significance of the fact that 1435-1525 MHz is not within the U.S. proposals for the WARC by suggesting in part that the Commission's June 13 Report in Gen. Docket No. 89-554 does not "prejudge" the outcome for the WARC. AMSC's argument is a highly selective one: AMSC has no problem assuming as accomplished fact WARC approval for reallocation of 1525-1530 MHz to MSS; indeed this is the linchpin to its entire argument. By the same token for consistency's sake it should assume that MSS will receive no other allocation from the L-band.

In any event AMSC's new technical arguments on sharing are no more sound than its previous arguments. For example, AMSC argues that it studied separate data acquisition and tracking systems (Technical Appendix at 11). In fact, the values AMSC derived are based on an erroneous view of telemetry systems, leading to overly optimistic sharing projections. Moreover, its analysis reflects an inflated and incorrect view of transmitter powers; the erroneous use of 0 dBi gain transmitter antennas (resulting again in overly optimistic conclusions); on power density calculations which were, but which should not have been, viewed as "independent of the telemetry data rate" (id. at 12); and on a lack of understanding of the dynamics of flight test operations and the serious difficulties and cost penalties its sharing scenario would pose.

The flimsiness of AMSC's sharing case is perhaps best demonstrated by the fact that AMSC wants flight testing reduced to the status of a secondary allocation vis-a-vis MSS.[3/] It seems that even AMSC does not entirely credit the ease of sharing, particularly with a safety-related service -- this being so, why should the Commission?

3/ See Comments of American Mobile Satellite Corporation filed August 20, 1990 at 6.

Given the manifold flaws in AMSC's 1515-1525 MHz proposal, there is no point to further burdening the record regarding AMSC's sharing scenario. If the Commission should desire additional technical details, AFTRCC will be pleased to supply same; however, the most appropriate (and expeditious) result would be to simply dismiss AMSC's Petition.

Respectfully submitted,

AEROSPACE & FLIGHT TEST RADIO
COORDINATING COUNCIL

By: William K. Keane
William K. Keane

WINSTON & STRAWN
1400 L Street, N.W.
Washington, D.C. 20005
(202) 371-5775

Its Counsel

December 4, 1991

CERTIFICATE OF SERVICE

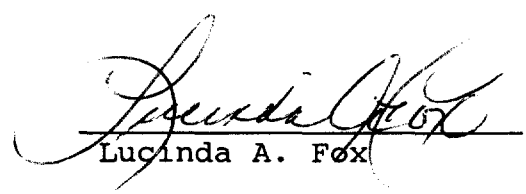
I, Lucinda A. Fox, hereby certify that I have this 4th day of December 1991 caused the attached "Reply Comments" to be deposited in the United States Mail, first class postage prepaid, addressed to the following:

Bruce D. Jacobs, Esq.
Fisher, Wayland, Cooper
& Leader
1255 23rd Street, N.W.
Suite 800
Washington, D.C. 20037

Eleanor C. Leung
SATELLITE CD RADIO, INC.
800 K Street, N.W.
Suite 750
Washington, D.C. 20001

Glenn S. Richards, Esq.
Gurman, Kurtis, Blask &
Freedman, Chartered
1400 Sixteenth Street, N.W.
Suite 500
Washington, D.C. 20036

Lon C. Levin, Esq.
Vice President &
Regulatory Counsel
American Mobile Satellite Corp.
1150 Connecticut Avenue, N.W.
Fourth Floor
Washington, D.C. 20036



Lucinda A. Fox

ENGINEERING STATEMENT

Based on a review of the Technical Appendix supplied with the American Mobile Satellite Corporation ("AMSC") Reply Comments of November 14, 1991, it is clear that AMSC has misapprehended flight test facilities and operations and that its conclusions may not be relied upon in support of its sharing proposal.

Among other things, the Appendix (which appears to be based upon an AMSC analysis filed with the Commission on October 18, 1990 in RM-7400) fails to analyze the interference susceptibility of the most commonly used telemetry facilities (AMSC confined its analysis of data acquisition facilities to antennas with eight (8) meters diameter or larger, i.e. antennas with less susceptibility to interference than those primarily in use); on an overstated notion as to typical telemetry transmitter powers; on the erroneous use of a 0 dBi transmitter antenna gain; on a failure to appreciate the connection between increasing data rates, increased bandwidths, and resulting increases in noise and interference; and on a disregard for the serious operational problems and cost penalties associated with its sharing proposal.

Eugene L. Law

Eugene L. Law
Vice-Chairman, Telemetry Group
Range Commanders Council

Dated: 12/2/91